

AUGUST 5, 1950
Vol. 113 No. 3

AMERICAN FERTILIZER

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THE COVER: This issue we are showing some green pastures, some good cows and some farm friends using "elbow grease" . . . America is beautiful in August . . . now is the time to take that vacation and come back ready to work.

AUGUST 5, 1950

EDITORIAL

THE CHEMICAL WAR ON INSECTS

By SAM LEWIS VEITCH, Publisher

THE BUG PARADE continues its march of death. Chemical laboratories are developing new and more powerful insect killers. The big chemical companies are developing new chemical compounds such as parathion and pyrethrum.

There seems to be every evidence that big volume sales will develop with these insecticides, a volume that will come somewhere close to that established by DDT. When one stops to think about it, the dollar sales volume of insecticides right now is not to be scoffed at, so, think where the road will lead as more progress is made.

Among the most promising of the newcomers is synthetic pyrethrum, a product developed by the U. S. Department of Agriculture and being manufactured on a free patent license by Union Carbide & Carbon Corporation.

THERE IS ANOTHER pyrethrum patent which is held and owned by U. S. Industrial Chemicals, Inc. They are promoting their product rather vigorously and evidently are creating a demand for it with advertising and educational material.

Parathion is a phosphate compound made by American Cyanamid Company, Monsanto Chemical Company and Pittsburgh Coke & Chemical Company. The product is finding a ready market among apple, peach, and pear growers. It is also being well received by citrus fruit growers. Parathion is toxic but its potency diminishes rapidly. In conquering mites on deciduous and pitted fruits and scale on citrus fruits, it has outwitted two of the most potent enemies of the fruit growing industry.

Two new insecticides being developed are tetra-ethyl-pyrophosphate and hexa-ethyl-pyrophosphate made by Victor Chemical Company, and others. These chemicals are presenting strong competition to parathion.

Two other chemicals, said to be among the most powerful of the known cotton insecticides, including the boll weevil, are Aldrin and Dieldrin. Julius Hyman & Company are the manufacturers and Shell Chemical Corporation are the marketing agents in the introduction of this deadly twin insecticide team. In fact, their potency is so great, it is claimed that it requires only four ounces an acre to be effective in the control of cotton insects and only two ounces of aldrin to an acre is sufficient for the control of grasshoppers.

The formulating of pesticides to meet specific needs of your customers, using these powerful ingredients that our scientists have developed, presents a real opportunity for steadily increasing business.

PACIFIC NORTHWEST FERTILIZER CONFERENCE

Fertilizer Men Move Toward Organized Cooperation with Soil Researchers

FERTILIZER men from Washington, Oregon and Idaho took the first step July 18 toward organized cooperation with soil and fertilizer researchers in the area.

The group met at Washington State College's Western Washington Experiment Station and more than 110 persons attended the two-day affair, first of its kind in the area.

The fertilizer men voted unanimously to set up a Soil Improvement Committee—to work hand-in-hand with scientists from state colleges and experiment stations and other soil researchers.

"Now we can really get together and iron out fertilizer problems for the area," said Mac C. Taylor of the Oregon-Washington Fertilizer Company of Seattle.

The committee will function through the Pacific Northwest Fertilizer Council, an old group with a new name and a new member state—Idaho. Formerly it was known as the Washington-Oregon Fertilizer Council. The committee will have members from both the industry and the research agencies, probably five from each group, plus a chairman. Agronomy department heads at the state colleges in the three states will be asked to name members from among the researchers, including U. S. Department of Agriculture soil scientists in the area.

The move to organize was made after two days of talking about the Northwest's fertilizer problems, during which these conclusions were reached:

Crops still grow "like weeds" in the area's fertile soils—but the day for more scientific use of fertilizers is at hand. Farmers are literally

By ROBERT R. KULL *Information Specialist*

pumping nutrition out of the soils; if it is not continually replaced, yields will go down. The time to think about decreasing soil fertility is before it gets out of hand.

Using the right kind of fertilizer at the right time is a big job, takes lots of questioning and probing for answers, lots of research, lots of cooperation—between scientists, industry, the farmer.

Russell Coleman, president of the National Fertilizer Association, Washington, D. C. said freight charges upped fertilizer costs 40 per cent in the Northwest.

"The industry here has many problems," he said, "but it can take advantage of past mistakes made by other areas where heavy quanti-

ties of fertilizers have long been used.

"Think now, while you still have your rich soils; if you don't preserve them, they will be depleted as others have been," he said.

John R. Taylor, Jr., of the American Plant Food Council, Inc., Washington, D. C., said that all groups concerned had to "help pull the oar"—experiment stations, the Extension Service, Soil Conservation Service and other agencies, industry, and the vocational agriculture teachers.

"And it's all no good if you don't get the information to the farmer—in as concise a form as possible. After all, he's too busy to be an expert on everything, so you've

Extension Service
Washington State College
Pullman, Washington



The conference members toured the Puyallup station's fertilizer test plots. Here Karl Baur, soil scientist at the station, describes fertilizer work underway with corn

AMERICAN FERTILIZER



The men who described soil and fertilizer research at experiment stations in the area, left to right: Dr. R. E. Stephenson, Oregon State College, Corvallis; Nels Benson, Soil Scientist, WSC's Tree Fruit Experiment Station at Wenatchee; Dr. H. M. Reisenauer, soil scientist at WSC; T. L. Jackson, agronomist at WSC; Karl Baur, soil scientist at the Western Washington Station at Puyallup; C. O. Stanberry, soil scientist at WSC's Prosser Experiment Station; and Arthur King, Extension Soils Specialist at Oregon State College

got to give it to him short and sweet."

Taylor said pasture and forage crops were rapidly being used more all over the nation. New England farmers, he said, are getting 10 pounds of milk from one pound of pasture. In the South and East, farmers are getting from 300 to 600 pounds of beef per acre from pasture, he said.

"I would hate to guess what you could make on this soil in pasture. To an outsider, it looks very promising, and I'd advise it, if you can spare any acres for it."

Dr. B. R. Bertramson, chairman of WSC's agronomy department and co-organizer of the conference with Karl Baur, soil scientist at the Puyallup station, said fertilizers will be necessary to maintain the "tremendous" yields of the Northwest.

"And fertilizer is cheap—the farmer's dollar buys twice as much fertilizer as it does other things he buys.

"The average farmer today is a businessman, biologist, chemist and engineer all rolled into one—but principally he is a scientific farmer; and he will have to continue to be to stay in business."

Dr. Bertramson said the main problems concerning the use of fertilizers are getting available information to the farmer and gathering his problems for industry and research workers to work on.

"The only answer is by group action," he said. "And with this new committee, we're well on our way."

Dr. J. C. Knott, director of WSC's Institute of Agricultural Sciences, said the soils and climate

in the Northwest permit a wide diversity of crops and very high yields.

"But yield per acre is not the only thing," he continued. "A farmer has to grow economically, and that means scientifically, with good farm management.

"It's up to you people, both from industry and the research groups, to help him farm scientifically—so that he gets the most out of his land for his money and effort."

He said the fact that 45 per cent of the nation's agricultural income was made by 9 per cent of the farmers was sufficient evidence that many farmers do not operate scientifically.

"We must get closer to the guy all this work is done for—the ultimate consumer, the farmer, if we want to really find out what needs to be done in fertilizer research," said George Wickstrom, field representative of the American Potash Institute, Sumner, Washington.

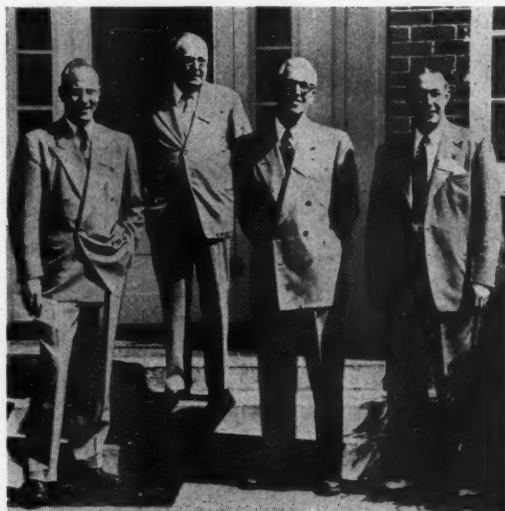
"We must realize his needs and his problems—it's a job of education and a joint responsibility of industry and the colleges.

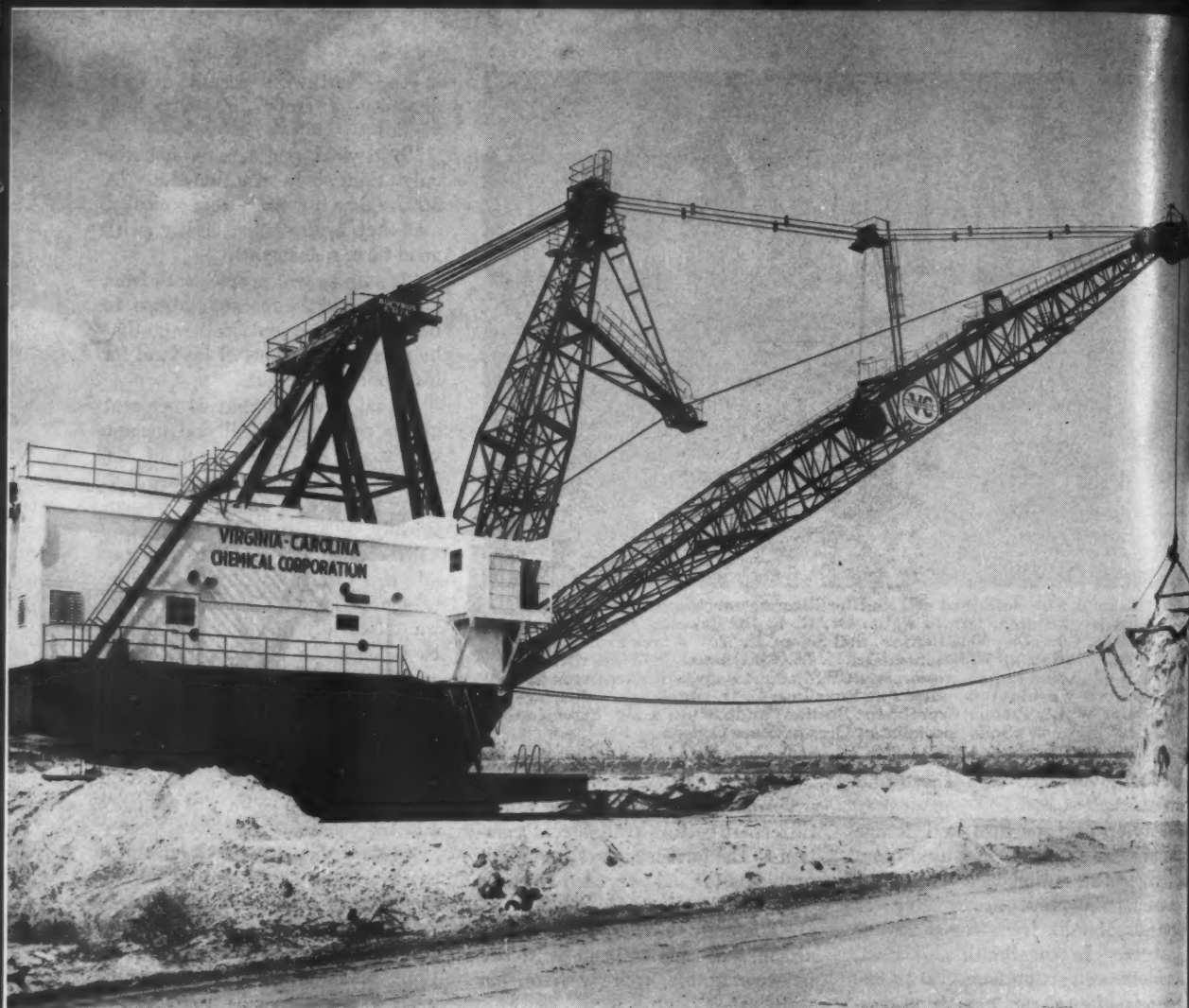
"Before this we had no group in the Northwest representing all the members of industry to coordinate its research, or to recommend to the state colleges and experiment stations plans for fertilizer research. . . . We sadly needed something."

M. E. McCollam, manager, Western States American Potash Insti-

(Continued on page 27)

Left to right: George Wickstrom, field representative of American Potash Institute, Sumner, Washington; Mac C. Taylor, Oregon-Washington Fertilizer Company, Seattle; M. C. McCollam, manager, Western States American Potash Institute, Inc., San Jose, Calif.; John R. Taylor, Jr., American Plant Food Council, Inc., Washington, D. C.





Completed and decked out in a brand new coat of paint, complete with V-C oval, 650-B gets its first taste of the earth in this shot which was made as the giant dragline was about to go into service. Ready for action, it will operate at a 24-hour pace, moving 38,500 tons a day

SHE'S A QUEEN

The Story of 650-B

R. Clifton Long

Reprinted by permission of
Virginia-Carolina Chemical Corporation

THE story of 650-B is no ordinary story of cold steel and harnessed power. Rather it is the story of a beating heart, a vital throbbing mechanism, working round the clock in order that man might have phosphate, which contains the necessary element of all-life.

650-B is a dragline—a new dragline at V-C's phosphate mines at Nichols, Florida. Already she's busy moving the earth on that peninsula, and if the gigantic lady continues at her present pace and puts in 325 days of work during the year, she will have moved 25,500,000,000 pounds of the earth's surface. Chances are she'll do just that.

If it were possible to have an interview with 650-B she'd probably tell us that her job isn't as difficult as it seems. Moving 25 tons of rock in less than a minute is no easy task, not among humans anyway. But with 650-B it's different. She is of the strong variety, as

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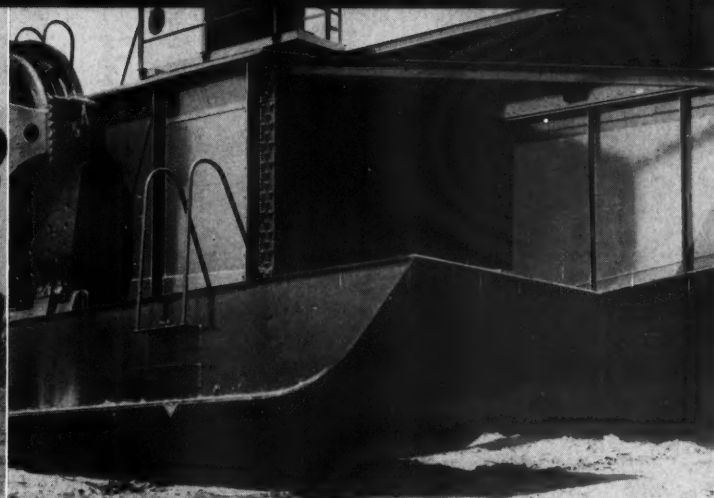
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How big must a dragline bucket be to move 25 tons of earth at one bite? This photo gives you some idea

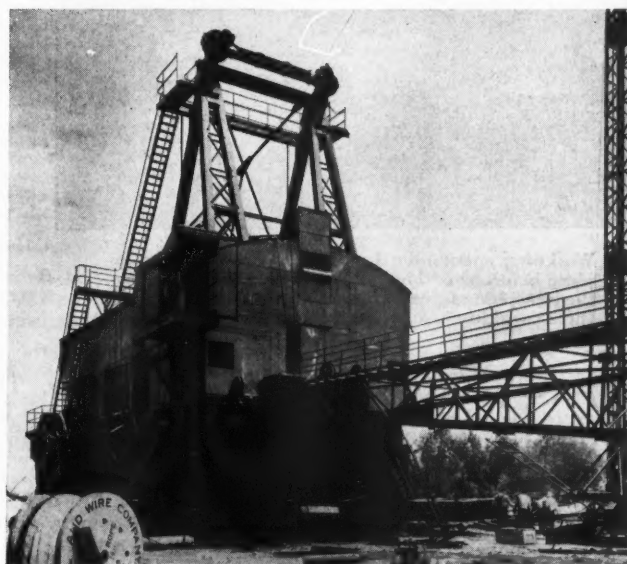


Big draglines have big feet, shoe size 7 ft. by 40 ft. to be exact. Here is one of the feet in action as 650-B takes a step

Amazons go, and she's big enough to do such a job and do it well. Why her, body alone (in cold engineering talk they call it a cab) is bigger than the average six-room bungalow, attic included. To be exact, it is 53 ft., 6 in. long; 28 ft., 6 in. wide; and 18 ft., 7 in. tall. She'd tip the scales, if there were scales that would stand tipping by such a gal, at 1,600,000 pounds. Her shoe size—well you name the size; we took her measurements and found her shoes to be 40 feet long and 7 ft. wide.

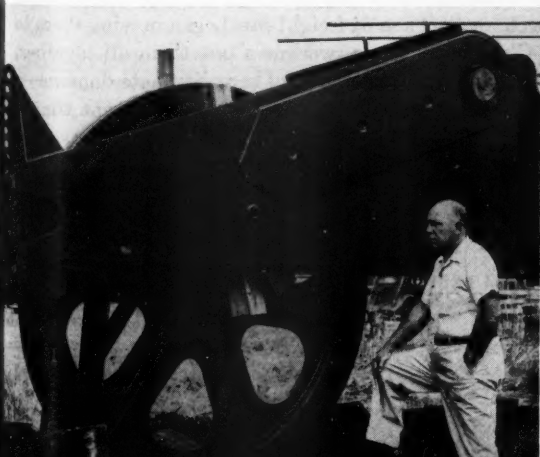
As might be expected, 650-B uses her shoes for walking. In spite of her size, she gets around faster than you would think. If she were in a hurry, she could walk a mile in five hours. Not slow by any means, when you remember that she is carrying around over a million and a half pounds.

For moving the earth, 650-B uses a bucket that is a toy to anyone her size, but mammoth to the average guy. It is so big, in fact, that even your wife could



This is a general view of the housing with the boom attached. And speaking of housing, 650-B's housing facilities are bigger than the biggest six room bungalow

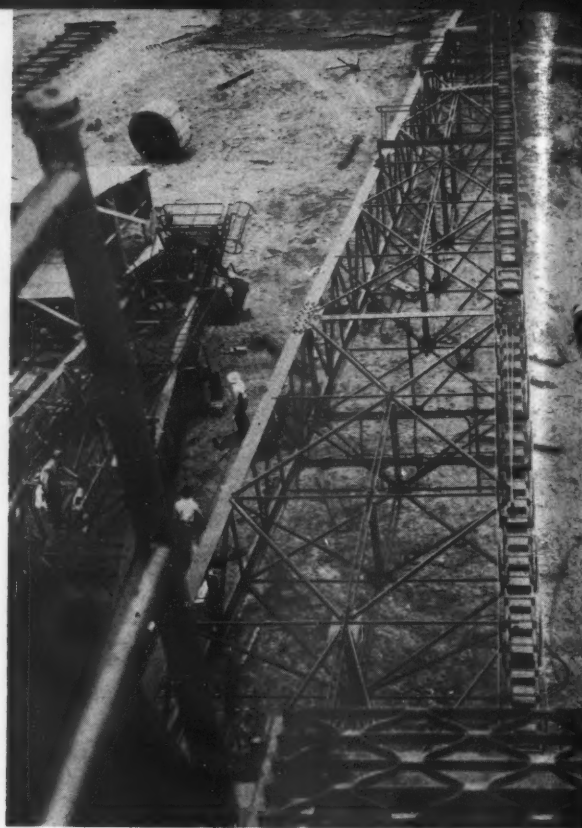
Here's a man to show you how big the point sheave is on the end of the boom



Big draglines also require big ring gear. If you don't believe it, take a look at this close-up of 650-B's ring gear



Workmen spent months getting 650-B all in one piece before the "big gal" was ready for action on the phosphate front. This action shot shows two of them working up in the air on the "A" frame rivets



If high places make you dizzy, don't try climbing the boom on 650-B. The photograph above, was taken from atop the "A" frame, looking down on the 175 ft. of boom which is being assembled on the ground

drive the car into it without scratching a fender. The bucket alone weighs almost 28,000 pounds, but 650-B's Amazonian "muscles" of cable can lift it as though it were a child's sand bucket.

V-C's new dragline gets all of her energy from two 650 Hp synchronous motors driving two DC generators to convert current from AC to DC. She's a 4,100-volt machine, so you can see, she's not lacking in power.

When she's in operation, and that's 24-hours out of almost every day, 650-B moves in a cycle something like this:

She lowers the bucket, scoops up the earth, swings the boom around, empties the bucket, and moves back to starting position and lowers the bucket again. All this she does in less than a minute. After she has moved everything within her reach, she takes a step backward and continues with her work, leaving in her wake a deep strip from which she has mined the rock.

When the last rivet was in place and the giant motors

were ready to breathe "life" into the new dragline, she was decked out in a colorful garb of paint that makes her the belle of phosphate mining society. The cab is a clean white, the boom and the "A" frame are red, and the bottom is blue. Midway between the "A" frame and the boom, 650-B proudly wears the V-C oval with "Phosphates" across the bar.

Powerful electric eyes (spotlights to all but 650-B) light up the area around her during the hours of night in order that she can continue her work. During these night hours she takes on a carnival air and is a thing of beauty against the Florida sky.

Six months ago V-C's new 650-B dragline was a disassembled mass of individual parts, like a mammoth erector set. Then 64 freight cars began moving them to V-C's Florida mines, workmen put them all together, and today she is the queen of her phosphate domain—a beautiful, genial, "lady" among the equipment that is such a vital part of our jobs.

Workmen put them all together, now she is queen of her phosphate domain

Notes From The Field . . .

Chase Bag's New "Baby"

The all-criinkled Multiwall paper bag—newest "baby" of the ever expanding bag industry, shows signs of growing to healthy proportions. Chase Bag Company has announced completion of its St. Louis plant for the production of *Sharkraft* bags, the company's new name for this container. All-criinkled and "crest-ple" laminated paper bags were a post-war development, first produced in commercial quantities in 1946.

Although it resembles a regular smooth Multiwall in style and construction, the all-criinkled Multiwall bag's design gives it inherent longitudinal stretch. This quality is the result of using so called "wet creped" or secondary creped paper, containing approximately 12 per cent to 15 per cent stretch in the individual ply construction. Three, four and five wall bags are produced by laminating the individual walls of criinkled paper together with a light coating of pliable adhesive.

The outstanding feature of these bags is their ability to expand and absorb unusual shock and strain that would burst ordinary paper bags. Further advantages are claimed because the crinkling process imparts a deep grooved, "non-skid" outside surface and makes it possible to stack bags 30 or 40 high without danger of sliding or toppling. The crinkling process makes the bags soft and flexible and makes possible the use of almost any type of textile or paper bag sewing equipment for closing the filled containers.

To date, 50-pound and 100-pound units have been widely accepted in such industries as starch, salt, various types of animal feed, refractory cement, dry adhesive, powdered milk, meat scraps, tankage and many other products. It is the only paper bag ever made which has been accepted for the packaging of hybrid seed corn, seed oats and other similar materials.

One sweet thing to another: "He thinks of himself as a wolf, but I think of him as a mink."



Mr. and Mrs. Louis Ware of Winnetka, Ill., at Idlewild Airport, New York City, before taking off for England and Africa. Mr. Ware is president of International Minerals & Chemical Corporation, Chicago. He will spend the next two months on business in England and Africa, inspecting mining operations

Advertising Mgr. Wins Award

The annual Putman Award for "the best use of industrial advertising and the best documentation of such use" was presented to Raymond P. Wiggers, Advertising Manager of The Frank G. Hough Co., Libertyville, Illinois, manufacturers of material handling equipment, and to its agency, Ervin R. Abramson Advertising, Milwaukee, Wisconsin, at the National Industrial Advertisers Association Convention in Los Angeles.

The Putman Award was established by Col. Russell L. Putman, President of the Putman Publishing Company, to help provide tangible evidence of the superiority, the high efficiency and the effectiveness of industrial advertising.

Jack Benton Dies

JOHN F. BENTON of Raymond Pulverizer Division, Combustion Engineering Superheater, Inc., died July 27 at his Chicago home.

Mr. Benton attended this year's NFA convention at The Greenbriar. Before coming with Raymond in 1936 he was for many years with Kent Mill Company.

Spencer L. Carter Dies

Spencer L. Carter, retired former president of Tobacco By-Products and Chemical Corporation and also a former vice-president of Virginia-Carolina Chemical Corporation, died July 3, 1950, at a Richmond, Virginia hospital, where he had been a patient for some weeks.

Mr. Carter, who was born in King William County, Virginia, May 10, 1873, served as president of Tobacco By-Products and Chemical Corporation from 1920 to 1945. He became associated with V-C in 1897 and was vice-president from 1919 to 1932, when he was made first vice-president in charge of operations. He served in that position until 1935 and was a member of the V-C Board of Directors for 15 years. He retired December 31, 1945.

Surviving him are two daughters, Mrs. Walter A. Williams, Jr., and Mrs. Fielding Williams, of Richmond, and five grandchildren.

Mr. Carter was widely known in the agricultural chemicals industry. He was esteemed as a gifted executive and beloved as an outstanding citizen and a gentleman of the old regime. During Mr. Carter's active career he was always interested in industry matters. He served as NFA president and held many other positions of importance.

V-C Appoints Two

Virginia-Carolina Chemical Corporation announces the appointments of Preston L. Parrish and D. M. Low as assistant managers of its Purchasing Department.

Parrish has been a member of the V-C Corporation for 26 years and is widely known in the industry.

Low, also a member of the firm for many years, will supervise the purchase of factory supplies and equipment.

Belle—"My husband is an efficiency expert in a large office."

Nell—"What does an efficiency expert do?"

Belle—"Well, if we women did it, they'd call it nagging."

NAMES IN THE NEWS



Spencer Promotes Taylor

George V. Taylor is the new director of sales development for Spencer Chemical Company, Kansas City, Mo. Mr. Taylor will have charge of advertising, agronomy and market research. Mr. Taylor has been with Spencer since 1942 and since 1947 has been director of market research.

Pennsalt Promotes Whinfrey

Charles G. Whinfrey, Jr., is the new technical sales representative for the agricultural chemicals department of Pennsylvania Salt Manufacturing Company, Philadelphia. He will handle the northeastern territory with headquarters in Philadelphia.

Donald E. Hope was appointed sales control assistant in the Philadelphia office, the position formerly held by Whinfrey.

With the old-style telephones attached to the wall, folks finally quit talking when their legs gave out.

Woman was a side issue at the Creation, but now she's the whole works.

USDA Promotes Barker

Dr. Henry D. Barker has been appointed head of the division of cotton and other fiber crops and diseases in the bureau of plant industry, soils, and agricultural engineering. He succeeds Dr. Charles R. Sayre, who resigned to become president and managing director of the Delta & Pine Land Company, Scott, Miss.

Chemical Group Named

The seven-man committee called for in H. Res. 323 to investigate the use of chemicals in the production and processing of foods has been appointed by Speaker Rayburn.

Chairman of the group is Representative James J. Delaney of New York. Other members are Thomas G. Abernethy of Mississippi, E. H. Hedrick of West Virginia, Paul C. Jones of Missouri, Frank B. Keefe of Wisconsin, A. L. Miller of Nebraska, and Gordon L. McDonough of California.

Kanatzer Retires from Chase Bag

H. H. Kanatzer, Sr., employed by Chase Bag since 1910, retired on his fortieth anniversary with the company. He has held many office positions including sales manager in Kansas City before expanding sales activities to several midwestern states. Kanatzer was in charge of the Hutchinson, Kans., sales branch.



S-D Promotes "Jimmie"

Ralph B. Douglass, president of the Smith-Douglass Company, Norfolk, Va., announces the election, by the Company's Board of Directors, of James H. (Jimmy) Culpepper, Jr., as vice-president.

Mr. Culpepper, who has been employed by the company since 1938, is a native of Norfolk where he finished high school. He is a Virginia Military Institute graduate, class of 1936. Prior to his election as vice-president, he was Assistant Sales Manager at the Company's General Office and previously was stationed at Kinston, N. C. He served in World War II (1943-1946) as a major in military intelligence.

INTERNATIONAL

SUPERPHOSPHATE MEETING

The International Superphosphate Manufacturers' Association met in Madrid recently, with a record attendance of over three hundred.

For the year 1950-1951, the following officers were elected or re-elected: Mr. R. Standaert (Belgium), President; Mr. R. Audouin (France), Mr. J. Capele (Spain), Mr. B. Colbjornsen (Sweden), Mr. F. G. Clavering Fison (U. K.), Mr.

H. Stevenius-Nielsen (Denmark), Vice-Presidents; Mr. R. M. Collins, Secretary.

The 1951 annual meetings of the Association will be in Switzerland, and a series of Technical Meetings will be held in Paris in the autumn of 1951.

The offices of the Agricultural Committee have been removed to 1, Avenue Franklin D. Roosevelt, Paris (8e).

AMERICAN FERTILIZER



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HE knew the value of a lever.

"Give me a base," he said, "and I will move the earth."

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Write today for rates.

AMERICAN FERTILIZER

SAM LEWIS VEITCH, PUBLISHER

317 NORTH BROAD STREET, PHILADELPHIA 7, PA.

NAMES . . .

Link-Belt Public Relations

Link-Belt Company is establishing a separate public relations department at executive headquarters, 307 N. Michigan Avenue, Chicago, headed by Harlan B. Collins, secretary of the company, and Russell B. Kern.

Kern has supervised the company's Public Relations activities as part of the advertising department. He will continue as Editor of *Link-Belt News*, the company's house magazine.

The advertising department, under Julius S. Holl, manager, has added Bertram V. Jones as executive assistant advertising manager. Jones is assisted by John F. Kelly, assistant advertising manager.

Saltville, Va. Plant

Mathieson Hydrocarbon Chemical Corporation, of Baltimore, Md., has awarded a contract to Chemical Plants Division of Blaw-Knox Company for the engineering and procurement of a chlorine and caustic soda plant at Saltville, Va.

This new unit will be one of the most modern in the United States when it begins operation in 1951. The design is based on the Mathieson mercury cell process, which produces chlorine and rayon grade caustic soda of 50 per cent concentration directly from the cells.

CSC Erects Plant

Commercial Solvents Corporation plans to construct a \$1,000,000 addition at the Sterlington, La., ammonia plant. The new unit will be located on the site of the present Sterlington plant, which makes anhydrous ammonia from natural gas. It is expected to be in operation by early 1951.

A large amount of the anhydrous ammonia production at Sterlington is being used for direct application in Louisiana and Mississippi.

Ford Joins Spencer

Harold A. Ford is the new industrial sales representative for Spencer Chemical Company, Kansas City, Mo. He was formerly associated with the purchasing department of E. I. du Pont de Nemours & Company, Wilmington, Del., which he joined in 1939.

German Potash Mine

Burbach Kali Works plans to reopen a mine in Western Germany near Gottingen. The long-term operation is expected to double the potash output. Initial steps have been taken and workings are now nearly 1,000 feet closer to potash deposits:

ARMOUR OFFERS INSECTICIDE ADHESIVE

Armour & Co., Chicago, has added a new product to its line of adhesives. Named "Armour Sticker," the material has been developed for use with insecticides and fungicides. The new adhesive is said to increase the deposit of the pesticide, and give more uniform coverage of the foliage.



"Bill Burlap" at Chicago

"Bill Burlap" welcomes a Fair visitor, dressed in burlap, to the Indian Jute Mills Association exhibit at the First U. S. International Trade Fair. "Bill," a real burlap bag who talks, is stationed at the entrance to the Association exhibit which features uses and performance of jute fabrics, chiefly burlap, in bags—on the farm, in industry, the home and in other packing and shipping. The exhibit is a first step toward bettering trade conditions between Calcutta Mills and U. S. buyers and making available information of service to consumers about jute fabrics, according to Alexander Low, the Association's representative in America. Over 70,000 American buyers, 5,000 to 6,000 foreign buyers and large numbers of the farm and general public are expected to visit the Fair, held August 7 to 20 on the Navy Pier in Chicago.

BONE MEAL

TANKAGE

BLOOD

SHEEP—COW—POULTRY MANURE

CASTOR POMACE

NITROGENOUS

GROUND TOBACCO STEMS

HOOF MEAL

ALL FERTILIZER MATERIALS

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FERTILIZER MATERIALS MARKET

NEW YORK

Good Deliveries of Sulphate Ammonia on Contract Schedules. War May Affect Fertilizer Nitrogen Output. Organics Market Firm. Good Demand for Superphosphate and Potash

NEW YORK, August 2, 1950

Sulphate of Ammonia

For nearby shipment this material is said to be in a stronger position, although no price changes have been noted. Buyers are more inclined to take delivery against current contracts and in some cases are taking the material faster than the producers can ship it.

Nitrate of Soda

There was no change in this material and, in view of the general strength of all markets, little price change is looked for.

Ammonium Nitrate

A good demand was in evidence for ammonium nitrate, with producers shipping against contracts. Some buyers were wondering if the Government intends to reactivate for war purposes some of the ordnance plants which produce nitrogen.

Nitrogenous Tankage

With most leading producers sold out for some time ahead, the spot market was strong and offerings hard to locate.

Castor Pomace

With offerings at present practically unobtainable, this material was in good demand. Producers are understood to be sold up for nearby months and not offering ahead.

Organics

Organic fertilizer materials were very firm in price and offerings of some materials for nearby shipment were hard to locate. Blood was quoted at \$8.50 (\$10.33 per unit N), f.o.b. New York and tankage at \$8.00 (\$9.72 per unit N), with offerings scarce. Cottonseed meal was very firm and with a short cotton crop this year prices were expected to be maintained, as it means a reduced supply of cottonseed meal. Soybean meal for quick shipment sold at \$86.00 per ton, f.o.b. Decatur, Ill. Linseed meal sold at \$69.00 per ton in bulk, f.o.b. Eastern shipping points.

Fish Meal

With the domestic fishing season about half over and reports of a rather poor catch this season, this material firmed up with other materials and one leading producer withdrew from the market. Last sales of menhaden fish meal were made at \$130.00 per ton, f.o.b. fish factory.

Bone Meal

Prices advanced slightly as buyers entered the market for their next season's requirements. Some producers are sold up for nearby shipment.

Hoof Meal

This material was quoted at \$7.00 per unit of ammonia (\$8.51 per unit N), f.o.b. Chicago, and offerings were not heavy. A good demand was noted from fertilizer buyers.

Superphosphate

One large producer reduced the price of this material to 70c per unit, f.o.b. Carteret, N. J. No reason was given and prices at other producing points remained unchanged. Triple superphosphate was in better supply but it is felt there is still a small shortage of this material.

Potash

Practically no foreign material is being offered and domestic producers are shipping against current contracts. A good demand is noted from various areas.

PHILADELPHIA

Materials Market Firmer. Sulphuric Acid Supply Curtailed. Carteret Superphosphate Price Reduced

PHILADELPHIA, August 2, 1950

The general fertilizer materials market is much firmer and shows an upward tendency. Blood and tankage are higher and decidedly stronger, and should it be found necessary to increase ammunition production, the nitrogen position is bound to become very tight. Sulphuric acid is becoming scarce and if the shortage continues the production of superphosphate will surely be affected. Prompt coke-oven sulphate of ammonia is tight but at the present moment is easier for future delivery. Reduced production of soda ash is upsetting the domestic nitrate of soda manufacturing program.

Sulphate of Ammonia

For prompt delivery the coke-oven grade is reported tight but easier for future. Converter's grade is presently a little easier, but the situation can quickly change, due to sulphuric acid scarcity and possible war demands.

Ammonium Nitrate

Stocks are reported very short in supply.

Nitrate of Soda

Outlook for this article just now is not very encouraging; at least so far as the domestic production is concerned. Cutback in production of soda ash, due to strikes, seriously interferes with the manufacture of domestic nitrate of soda.

Blood, Tankage, Bone

Blood and tankage are much higher and in better demand. As high as \$9.00 per unit of ammonia (\$10.94 per unit N) has been asked, and sales have been made at \$8.00 to \$8.50 per unit (\$9.72 to \$10.33 per unit N), with the market gaining strength. Inquiry for bone meal is more active and price is improving. Hoof meal is also higher at \$6.50 per unit of ammonia (\$7.90 per unit N) in Chicago area.

Castor Pomace

This is reported out of the market for the present.

Fish Scrap

Market is stronger but no material price changes yet.

Phosphate Rock

Movement is rather quiet, due to reduced shipping demand by acidulators. This inactivity is more or less normal for this season of the year and should not continue very long.

Superphosphate

The Carteret price has been reduced to 70 cents per unit, but no changes are indicated in other areas. It is feared the scarcity of sulphuric acid may have a retarding influence on the production of superphosphate.

Potash

Domestic production continues at capacity, with movement almost entirely against contracts.

CHARLESTON

Organics Market Higher. Most Materials in Adequate Supply. Some Reduction in Superphosphate Prices Reported

CHARLESTON, JULY 31, 1950

The market on organics has strengthened considerably in the last two weeks, primarily due to the increased demand from the feed industry. Fertilizer manufacturers continue their preparation for the new season by purchasing supplies of nitrogen, phosphates and potash. There is no serious shortage in sight at present.

Organics

Market on organics is quite firm, with domestic producers of nitrogenous tankage temporarily sold up on their expected production for the entire season. Price is nomi-

AUGUST 5, 1950

nally \$4.00 to \$4.35 per unit of ammonia (\$4.86 to \$5.29 per unit N), in bulk, f.o.b. production point, depending on its location. Feeding grade organics, such as blood and tankage have recently advanced to levels out of reach of most fertilizer manufacturers. Offerings of imported organics are light.

Castor Pomace

The majority of domestic producers are currently sold up on supplies through September, with no offerings being made for shipment beyond September. Last sales were made at \$30.50 per ton in bags, f.o.b. Northeastern production points. Any new offerings are expected to bring \$32.50 fcr fall shipment.

Dried Ground Blood

The Chicago market in the last two weeks has strengthened considerably, last sales being made at \$9.50 per unit ammonia (\$11.55 per unit N), f.o.b. Chicago. The New York market is around \$9.00 (\$10.94 per unit N), f.o.b. the New York area.

Potash

Movement of domestic potash against current contracts continues steady. Plants are working at their capacity. It is reported that the allocation of French potash is practically sold. No offerings of Russian potash have appeared recently.

Ground Cotton Bur Ash

This source of Carbonate of Potash testing 30 to 40 per cent K_2O is nominally priced at 65 cents per unit of K_2O in bulk, f.o.b. Texas production point. Temporarily one of the major producers is withdrawn from the market as supplies for the new

season are expected to be considerably less than last season's.

Phosphate Rock

Domestic shipments have decreased in seasonal dimensions; however, the market continues steady, with some relatively small movement being made on export orders.

Superphosphate

Prices in some areas have been reduced as compared to prices prevailing last season. Current prices for new season contracts are 66 cents per unit of A. P. A. at Charleston and Savannah and 69 cents at Wilmington, N. C. Carteret, N. J., is reported at 70 cents.

Sulphate of Ammonia

Coke-oven material is reported in tight supply for nearby shipment, but future shipment material is readily available. Some synthetic producers have spot supplies, although quite a few converters do not plan, at this time, to produce for the new season.

Ammonium Nitrate

Demand continues strong and in some areas the demand cannot be supplied fully by the producers of this material. Price continues unchanged.

Nitrate of Soda

Stocks continue adequate and demand strictly seasonal. Price remains unchanged.

CHICAGO

Sharp Advance in Organics Prices. Further Rises Expected

CHICAGO, July 31, 1950

Like many other commodities, the market on animal ammoniates in the middlewest advanced sharply during the past two weeks.

While buyers are proceeding with caution the market is in a very strong position and it appears very likely that prices will advance further unless there is a sudden change in the international situation. Under present conditions anything can happen and, pending further developments, both buyers and sellers are endeavoring to maintain conservative inventory positions.

Digester Tankage

Both digester tankage, 60 per cent protein, and meat scraps, 50 per cent protein, ground and sacked, range in values from \$135.00 to \$145.00 per ton, f.o.b. shipping points.

Dry Rendered Tankage

This commodity is quoted from \$2.40 to \$2.50 per unit of protein, according to quality and location.

Wet Rendered Tankage

On wet tankage the recent buyers' ideas are \$10.50 per unit of ammonia (\$12.76 per unit N) and available offerings are generally held at \$11.00 per unit (\$13.37 per unit N).

Dried Blood

Blood last sold at \$9.50 per unit of ammonia (\$11.55 per unit N), and further offerings are held at \$10.00 per unit (\$12.15 per unit N).

Steamed Bone Meal

This product, 65 per cent $B.P.L.$, is held from \$75.00 to \$85.00 per ton.

Raw Bone Meal

Selling now at from \$70.00 to \$75.00 per ton.

Spanish Fertilizer Plant

Nitratos de Castilla S. A. Valladolid, Spain, has started production of nitrogenous fertilizers. Reported as the largest and most modern plant in the country, the unit is currently operating at 32,000 tons ammonium nitrate per year, but expects to reach a rate of 64,500 tons per year by the beginning of 1951.

Fertilizer developments reported from other Spanish companies are, as follows:—S.E.F.A.N.I.T.R.O., Bilbao, expects to produce 125,000 tons of ammonium sulphate yearly by the first half of 1951 and is scheduled to complete its oleum plant this Summer; Sociedad Iberica del Nitrogeno, La Felguera, is increasing its ammonium sulphate capacity by thirty tons per day; Union Quimica del Norte de Espana plans a cyanamid unit with a rate of 6,000 tons yearly before the

IN THE FUTURE . . .

August 6-12	National Vegetable Week
August 7- 8	Pennsylvania Fertilizer Conference, State College
August 8- 9	Maine Fertilizer Conference, Poland Spring
August 9	Kentucky Fertilizer Meeting, Princeton Substation, Princeton
August 14-18	Farmers' Week, Clemson College, Clemson, S. C.
September 28	Annual Fertilizer Conference, Rutgers University, New Brunswick, New Jersey

end of 1950; Empresa Nacional "Calvo Sotelo," state-owned firm at Escatron, plans to be in production on ammonium sulphate and calcium nitrate by the end of 1951, and Altos Hornos de Vizcaya, Sagunto, using by-product coking gases, plans to make approximately 60,000 tons of ammonium sulphate yearly by the end of 1951.

The Scotsman has just had a very embarrassing experience. He would have sworn the sign on that door said: "Laddies."

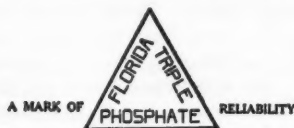
Special Burlap Exhibit

In Chicago, August 7 to 20, the Indian jute industry will feature a special burlap and jute exhibit at the First United States International Trade Fair. In this exhibit, the story of burlap and jute products as packing materials, particularly for U. S. commodities will be shown. Information on burlap, stressing farm uses, but also high-lighting industrial, home and other uses of jute fabrics will be part of the exhibit. A staff will be on hand to answer questions and literature and materials will be included in the exhibit.



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Granite City, Ill. (St. Louis)
Midland, Pa.

SURVEY

PACIFIC N. W. FERTILIZER

A short survey of the fertilizer industry in the Pacific Northwest has been published by Raw Materials Survey, 701 Woodlark Building, Portland 5, Ore., as information circular N. 6. The report was prepared by G. O. Bartell, RMS managing engineer.

Agricultural mineral resources are covered; so are production techniques and operations and the marketing pattern. Consumption of fertilizers in the three states increased from 103,969 tons in 1943 to 251,942 tons in 1948. At the time the survey was

made, there were eight producers of primary fertilizer chemicals in the region. Establishment of three more phosphate enterprises is under way.

The survey lists 28 fertilizer mixing plants in Idaho, Oregon and Washington. Distribution is shown in several tables, along with four primary producers' agents. The increasing use of low-flying airplanes for the application of fertilizer to grasslands is surveyed in this report.

Dings Redesigned Magnets

Dings Magnetic Separator Company has redesigned its non-electric Alnico Perma-Plate magnets in three magnetic field ranges. Types 1, 2 and 3 Perma-Plate magnets are designed for removing miscellaneous tramp iron from wet or dry materials in process in order to protect machinery or prevent sparks, as well as to purify non-magnetic substances. More powerful, lighter in weight than previous models, each of these types is made in 19 standard sizes from 4 inches wide through 72 inches wide and in 2, 4, 6 and 8 pole styles.

These magnets can be installed above belt and slat conveyors, in open or closed wood or metal chutes, in ducts, spouts and troughs, above and below feed tables, rolls or integrally in hammermills, garnetts and various types of processing machinery.

Perma-Plate magnets are not affected by weather or high temperatures, will handle liquids or solids. Their magnetic strength is measured and certified. Magnetic permanence is guaranteed for the life of the installation. Literature available upon request to the manufacturer. Write to 4740 W. Electric Avenue, Milwaukee 46, Wisc.

Pennsalt Increases BHC

Pennsylvania Salt Manufacturing Company, Philadelphia, is expanding benzene hexachloride production 45 per cent according to George B. Beitzel, president. Work on the new facilities at Natrona, near Pittsburgh, has started, said Beitzel, and increased production will be available by 1951.

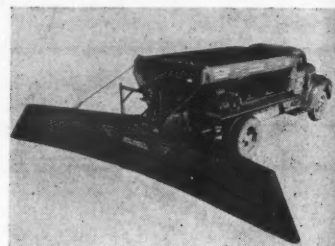
At the same time, the president announced appropriations in excess of \$1,000,000 have been made for

other expansion and improvements.

The new benzene hexachloride facilities at Natrona will be entirely for the production of Pennsalt's technical BHC, which contains 36 per cent gamma isomer. This product is sold under the trade name of "Penco BHC Technical 36" to other insecticide formulators and is used as the basic material in Pennsalt's "Penco" line of BHC insecticides. These include wettable and dust base products containing 12 per cent gamma isomer, an emulsion concentrate containing 11 per cent, combinations of BHC and DDT for cotton insects and several other special formulations.

Highway's New Spreader

Production is now underway on the new combination fertilizer and lime spreader manufactured by Highway Equipment Company, Inc. of Cedar Rapids, Iowa. The spreader features a separate engine to drive distributor discs.



In spreading position the slanted and tapered hood controls the material to aid in uniform distribution with a minimum of disturbance from wind. A complete descriptive folder is available from the manufacturer, Cedar Rapids, Iowa.

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PESTICIDES MARKET LETTER

Compiled by The Staff

Chlorine tight, BHC and DDT off in production. The Mexican bean beetle is a threat in New York and the tomato blight is serious in New Jersey. Some southern states are now using calcium arsenate because of lack of supplies. Lead arsenate season is over. Some cryolite still in demand. DDT prices did advance but with little effect.

Calcium Arsenate

Demand increased in 1950. Interest slow in Georgia, but on the rise in Texas, Mississippi, Alabama, Arkansas and Missouri. May production 2,449 tons. This compares with the April 1,424 and May 757 (1949) production figures. Total for 1949 was 16,006,000 pounds against 27,234,000 in 1948.

Lead Arsenate

Northern season over still demand in tobacco belt. Firm with prices unchanged. May production 2,205 tons (acid and basic), April 2,347 tons and last May the total was 356 tons. Output last year was 16,866,000 pounds compared with 24,630,000 in 1948 (figures from Bureau of Census).

2,4-D

April production was higher at 1,480,850 pounds compared with 1,200,027 in March. So far stocks have been able to meet requirements. Agronomists of the Department of Agriculture found that the next generation grown from the seeds of surviving plants was twice as resistant to the 2,4-D as those of the previous generation.

BHC

Supply position remained definitely tight with output under contract through most of August. April production amounted to 4,550,390 pounds, compared with 4,320,136

pounds in March. The gamma isomer content in April was 627,153 pounds, against 587,779 in the preceding month.

Production of benzene hexachloride in Japan in 1949 totaled 595 metric tons and was 10 per cent greater than planned output. A program for manufacturing this material was first undertaken in the latter part of 1948 and commercial production began in February, 1949.

DDT

Prices have been advanced to 34 cents to 36 cents per pound for carlots, works, freight equalized with recognized competitive points, the price range is according to producer. Smaller quantities range from 35 cents to 38 cents per pound.

Market position continued strong and tight with some of the producers asking higher prices. April output registered 6,151,793 pounds, against 4,374,585 in March.

Advices from India state that negotiations between the State of Mysore and the Government of India for the establishment of a DDT plant at Bangalore are understood to be in progress.

Nicotine Sulphate

Exports in March were 10,000 pounds, bringing the total for the first quarter up to 158,000 pounds. The only sizable shipment was 105,000 pounds to Norway. During the same period in 1949, exports totaled 478,000 pounds with Italy receiving 344,000 pounds.

Pyrethrum

March importations were low for the first quarter although the January-March total was 3,037,000 pounds, an increase of 39 per cent over the same period in 1949. The Kenya production this year is estimated at 2,500 tons.

Rotenone

Importations in the first quarter totaled 2,568,000 pounds, mostly all cube root from Peru, an increase of 15 per cent over the same period last year.

Sodium Arsenite

Producers' stock of dry material are now exhausted and new production will not start until late Fall or early Winter.

Passing a door in the wee hours of the morning, a drunk noticed a sign which read, "Ring the bell for the caretaker." He did just that and a sleepy-eyed man came to the door.

"What do you want?" asked the man.

"I wanna know why you can't ring the damn bell yourself."

Some people are lost in thought because they are such strangers there.

Profits: One of the contradictions of Communism is that the Communists in Soviet Russia are very likely to "liquidate" the manager who fails to make the factory he operates show a profit—but Communists in our country would like, if they could, to liquidate the manager who does make a profit.—National Association of Manufacturers.

An abbreviated novel:

Chapter 1: Walking in the moonlight with an arm full.

Chapter 2: Walking the floor with both arms full.

Woodward & Dickerson
Inc.

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the number of pounds of raw material for a desired per cent. of plant food in a ton of mixed goods—or find what per cent. of a certain plant food in a ton of fertilizer produced by a specific quantity of raw materials

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To make clearer its use, answers to such problems as the following can be quickly obtained:

How much sulphate of ammonia, containing 20 per cent. of nitrogen, would be needed to give $4\frac{1}{2}$ per cent. nitrogen in the finished product?

Seven hundred and fifty pounds of tankage, containing 8 per cent. phosphoric acid are being used in a mixture. What per cent. of phosphoric acid will this supply in the finished goods?

Should the Adams' Formula Rule become soiled from handling, it may be readily cleaned with a damp cloth.

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317 N. Broad St. : : PHILADELPHIA 7

Ag Chemical Record Supplies Ready for Insect Attacks

Even though the agricultural chemical industry has produced the largest volume of insecticides in its history, weather and the recent strikes may cause a few spot shortages of certain materials, according to Lea S. Hitchner, Executive-Secretary of the National Agricultural Chemicals Association.

Weather conditions so far this year have been ideal for the spread of major insect pests, including the boll weevil, European corn borer, and the grasshopper. It now appears that if such weather conditions continue, earlier predictions of record insect invasions by the U. S. Department of Agriculture and several Agricultural Colleges may be realized.

"Recent strikes have resulted in shortages of several basic chemicals, including benzene and chlorine, used in the production of insecticides, and may result in a supply situation not

equalling demand in all areas," Mr. Hitchner said. "However, Industry is making available to farmers the largest volume and greatest range of insecticides in history which would be ample to meet insect outbreaks in all but a few areas," Mr. Hitchner added.

"This Association, together with various government and private organizations, urged an early appraisal of needs, and the early purchase of at least a portion of requirements. Where the practice of early buying was followed, growers should be able to successfully meet insect outbreaks," Mr. Hitchner stated.

The range of materials provided by Industry should make possible more effective control of insect pests than ever before, and materially help to reduce the annual insect toll estimated as approaching \$4 billion a year.

No Sense About Scents— Says Skunked Agent

Skunks will be skunks according to County Agent August Neubauer of Virginia, Minn. He should know.

Mr. Neubauer once had a trusted polecat pet who made nightly calls at the county agent's home for handouts from Mrs. Neubauer.

One dark and scentless night the county agent came home and felt a polecat sleeping on the back porch after a big feed. No more meals for "Stinky" ruled the tripped agent.

"Stinky" called for his usual chow the next night—no grub. That made him mad. So because his friend had turned his back on him, "Stinky" did likewise. A skunk is like a mule, his dangerous end is the rear area.

Mr. and Mrs. Neubauer are not "at home" to callers for a while.

You have to be dead to get your face on money, but very much alive to get your hands on it.

FERTILIZING SWEET CORN FOR PROCESSING

Sweet corn grown for canning or freezing will benefit from applications of 250 to 500 pounds to the acre of a 5-10 5, 5-10-10, or 10-10-10 fertilizer in the row at planting time, according to the Experiment Station at Geneva, N. Y.

"The ideal placement for fertilizer for sweet corn grown for processing in this State would be in a band one inch to the side and two inches below the seed," says Dr. M. T. Vittum, canning crops specialist at the Sta-

tion. But as yet," he adds, "we have not seen many commercial corn planters which will accomplish this ideal placement."

Sweet corn grown for processing is normally drilled in rows three feet apart with the plants one foot apart in the row. This spacing gives about 14,500 plants to the acre. On soils of high fertility, the plant population might well be in the neighborhood of 17,000 to 18,000 plants to the acre in the opinion of the Station scientists.

Marked response of field corn to an extra shot of nitrogen fertilizer has been recorded in tests carried out by Dr. Vittum. In a field plot where all of the corn received 100 pounds to the acre of a 4-12-6 fertilizer, an extra 50 pounds of nitrogen in the form of ammonium sulfate increased the yield of shelled corn from 37.4 bushels to 42.7 bushels to the acre while a 100-pound application raised the yield to 51.4 bushels.

The number of ears harvested did not differ significantly from one plot to another, hence the increased yield was due to the larger ears produced on the nitrogen-treated plots, explains Dr. Vittum.

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AUGUST

The SPOTLIGHT is on . . .

LION OIL COMPANY

Lion Oil Company was organized in 1922 to operate a small refinery at El Dorado, Arkansas. At the beginning of 1950, with total assets of \$75 million and with annual sales above \$65 million, Lion is one of the South's larger industrial enterprises. Today, the Company engages in every phase of the oil industry—production, manufacturing, and marketing.

In addition, the Company owns and operates one of the world's most efficient and modern synthetic nitrogen plants. This plant produces approximately 10% of the nation's commercial output of synthetic nitrogen. It is designed to produce anhydrous ammonia at a rate of 208,000 tons annually. Additional manufacturing facilities have been installed which, at capacity, can further process a substantial portion of that basic material to produce annually, some 128,000 tons of nitrogen fertilizer solutions, 146,000 tons of ammonium nitrate fertilizer, and 138,000 tons of sulphate of ammonia. After the production of these materials, there remains approximately 36,500 tons of anhydrous ammonia available for sale as such, to be used in direct application to the soil and in various industrial processes.

Control laboratories, maintained at both the refinery and the chemical plant, assure highest standards for all products. In addition, centralized research is conducted to carry on the quest for new products in the petro-chemical field. The research division is currently expending more than \$400 thousand annually in the exploration for new and improved products. An agronomy department is also maintained to assist fertilizer manufacturers, agricultural representatives, and farmers in furthering improved fertilizing practices. To round out this service program, the chemical sales division offers expert technical advice and assistance to fertilizer manufacturers in solving their manufacturing problems.

Petroleum products made by Lion are distributed in the 48 states, Cuba, Mexico, Canada, and Europe. The major portion of Lion's nitrogen production is being shipped for use in the deep South.

fertilized soil and are grazing it more intensely. Also compare the recovery of the grass on the fertilized and unfertilized soil when the cattle are removed from the pastures."

Hoff recommends 60 to 66 pounds of P_2O_5 be applied to alfalfa at planting time and each spring thereafter. His fertilizer recommendation for irrigated pastures is 40-60 pounds of nitrogen and 44 pounds of P_2O_5 . Half should be applied in early spring and the remainder in mid-summer. However, on a grass legume mixture with heavy production of grass and light production of legume forage, use 40 pounds of nitrogen and 66 pounds of P_2O_5 . Where your mixture is producing a high proportion of legumes and a low proportion of grass, use 60 pounds of nitrogen and 20 lbs of P_2O_5 .

In this way farmers can partly control the amount of legumes and grass forage produced, because a fertilizer mixture high in phosphate will increase the growth and spread of legumes, while a mixture high in nitrogen will increase the growth and spread of grasses in the pasture.

When cotton is grown on inherently good land with low production (1 to 1½ bales), the extension agronomist recommends the application of 60-100 pounds of nitrogen and 44 pounds of P_2O_5 . The P_2OP_5 and one-half the nitrogen should be broadcast or drilled at planting time or before. The balance of the nitrogen should be side dressed when the first squares are produced.

Use high-analysis fertilizers to decrease the amount of freight paid for available plant nutrients received.

CHECK STRIPS CAN TEST FERTILIZERS

If you really want to encourage your customers to test the fertilizers that you are recommending with small grain, pastures, alfalfa or any other crop, ask them to leave a check strip of one or two drill widths, suggests Gordon B. Hoff, extension agronomist with New Mexico A & M College. Fertilizer salesman can use this tip.

"Such a check strip will give customers a good chance to observe the difference between the fertilized and unfertilized crop all through the season, from first emergence to harvest," the agronomist says. "If they

harvest carefully, it is possible to make a pretty good estimate of the difference in yield, which is the real test of whether fertilizing pays off."

Check strips, according to Hoff, should be away from the fence rows and away from dead furrows and should be as nearly typical of the rest of the field as possible.

"Sometimes cattle prefer the forage on fertilized soil over grass on the check strip," he points out. "Therefore, the grass on the check strip often appears better than that which was fertilized. Watch cattle to see if they prefer the grass on the

NORTHERN CHEMICAL INDUSTRIES, INC.

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PUBLIC RELATIONS:

THE SUMTER DAILY ITEM, Sumter, S. C. carried the following copy as part of a full page ad for Sumter Fertilizer Mfg. Co.

The Sumter Fertilizing Manufacturing Company, established over thirty years ago, has built its business upon the principle of rendering honest service to all. A home-owned enterprise with a capacity of several thousand tons annually, it makes a notable contribution to the prosperity of this section by manufacturing and selling fertilizers of highest quality to local farmers, making possible higher yields of cotton, tobacco and other crops. The value of these fertilizers is greatly increased by special mixing of ingredients to adapt them to local conditions and climate.

The Sumter Milling Company, owned by the same stockholders and under the same management, produces livestock and poultry feeds of exceptional quality. For 18 years this company, organized by the late Mr. A. E. Tisdale, has been buying grains from local farmers at top market prices, processing them into feeds and selling them back to the farmer without the added cost of transportation to and from a Northern milling center.

Management of these two concerns spares no effort or expense to improve the products. A constant research program is in progress to determine whether it is possible to make better feeds or fertilizer and new discoveries are incorporated immediately.

Proud of their part in helping Sumter and the surrounding community to reach their present size and prosperity, the Sumter Fertilizer Manufacturing Company and Sumter Milling Company offer their sincere congratulations and best wishes to the city on its one hundred fiftieth anniversary.

AMERICAN FERTILIZER has been editorializing recently on the need for better public relations programs in the industry. This friendly ad by Sumter Fertilizer in the Tenth Annual Iris Festival and Sesqui-Centennial issue of the local paper is a good tip for other fertilizer producers.

Look about you and see how you can take part in the local community life, and avoid being criticized with "that fertilizer place out on the edge of town never takes part in any local activities!"

AMERICAN FERTILIZER will be glad to publish public relations ideas, such as this one, in future issues. If you have done any local promotion work recently please send The Editor a copy of the material for publication.

SOUTHERN STATES PHOSPHATE and FERTILIZER COMPANY
SAVANNAH, GEORGIA

Manufacturers of
SULPHURIC ACID, SUPERPHOSPHATE, COMPLETE FERTILIZERS
and **ALL TYPES OF BASE GOODS**
EXPORT ORDERS SOLICITED



A COW IS an angular feminine bovine with four legs, an alto voice, a well established milk route, and a face that inspires confidence.

A cow's husband is a bull. A cow's brat is entitled a calf. Calves are generally used in the manufacture of Chicken Salad. Calves' brains can't be distinguished from scrambled eggs. When part of a calf gets breaded it is called a cutlet.

A cow provides vitamins for double chocolate malted milks until she is old enough to enter a can of corn-beef hash. Her tail is fastened to the rear of her back. It has a universal joint at one end and a fly swatter on the other.

A cow has two stomachs. The one on the ground floor is used as a storehouse for grass, loco weed, corn stalks, rock salt and the neighbor's cabbage. When the cow's storehouse reaches a state of either overproduction or under consumption she sit down in the shade of the old apple tree, and then belches like Henry the Eighth used to burp at a coronation banquet. This social error on the part of the cow makes some of the hay and stuff do a return trip from the storehouse back up to the front part of the cow's kind face, where it is fletcherized. This is where the trouble comes in, because a cow has no upper plate. All of her teeth are in the lower part of her countenance.

After this second-hand meal has been sufficiently gummed up by the cow, she sends back the order to the other stomach, where it is turned into cow meat.

An old cow has a tough time of it. In the end she gets skinned by those she has benefited, even as you and I.

A slice of a cow's rear end is very valuable to a cow, but it is worth only a nickel to a farmer, 16 cents to a meat packer, 46 cents to a retail butcher, and \$1.25 in a restaurant, not counting the tip. —Anon.

Mathieson Splits Stock

Stockholders of Mathieson Chemical Corporation, Baltimore, at a special meeting July 26, voted to approve the two for one split-up of the corporation's common stock. Thomas S. Nichols, president, is advising the company's shareholders of common stock that their present stock certificates may be exchanged for the new shares at any of the three transfer agents for the common stock. The two-for-one split increases the authorized common stock of Mathieson to 3,000,000 shares with a par value of \$5 each. Issued and outstanding stock amounts to 2,686,594 shares.

USI's New Insecticide

A revolutionary type of insecticide treatment for the prevention of insect infestation of wheat and other grains in storage, which gives full season protection with a single application, was announced July 27 by U. S. Industrial Chemicals, Inc., New York.

Two new insecticides, both of them safe for use directly upon grain for protection against insects, are now in production and will be available in limited quantities this year for the treatment of stored grain, which suffers damage of at least \$500,000,000 every year to insects. Production in 1951 will be stepped up to meet anticipated demands.

The insecticides, "Pyrenone Wheat Protectant" for all types of wheat, and "Pyrenone Grain Protectant" for corn, oats, barley, rice and other grains, are mixed with the grain to achieve thorough protection, including the elimination of hidden infestation which is the cause of insect fragments in flour and other grain meals, a matter of increasing concern to millers. Rate of application is 100 pounds per 1,000 bushels, or about 1.6 ounces per bushel, giving protection at a cost to the farmer of about two cents per bushel.

Why didn't Noah step on that male mosquito before he left the ark?

You'll find a few selfish folks here and there—mostly there.

AUGUST 5, 1950

"OPERATION BUG SPRAY"

The Civil Aeronautics Administration predicts aviation and aviators will play a bigger part in "Operation Bug Spray" during 1950 than in any previous year.

Requests so far in 1950 for waivers permitting low altitude flying for aircraft engaging in dusting and spraying of agricultural crops are considerably in excess of those in 1949, the previous "high" year, according to Administrator D. W. Rentzel. While it is difficult to estimate the agricultural acreages to be sprayed or dusted from the applications for waivers, it would appear

that a much greater acreage than previously will be covered.

Approximately 600,000 acres of forests in the northeastern portion of the country probably will get anti-gypsy moth treatment from aircraft sprayers this year, as against 400,000 acres last year. Another 1,000,000 acres, compared with 300,000 acres last year, will be sprayed to combat the spruce budworm; and in the grasshopper belt plants are in the making to cover some 2,000,000 to 2,500,000 acres with poison bait.



HONORABLE PAUL G. HOFFMAN
Administrator,
Economic Co-operation Administration

*"If you are going
to maintain
private enterprise . . .*

"If you are going to maintain private enterprise in the United States, you must have private savings. There is no substitute for them. If America ever loses the habit of thrift, and stops saving, the funds for private enterprise will cease."

More than 8,000,000 Americans . . . in 21,000 companies are enjoying the habit of thrift. By systematic purchase of U. S. Savings Bonds through the Payroll Savings Plan they are building their independence . . . putting aside money for a home or working towards other objectives that contribute to our national economy.

As employee participation in the plan increases, absenteeism and turnover go down and production goes up, because bond buyers are steadier, more careful workers. That is

not theory—it is the experience of companies that get behind the Payroll Savings Plan.

There's a national benefit, too. Think of the backlog of purchasing power being built up, month after month, by more than 8,000,000 workers!

If you are not affording your employees an opportunity to build for their future, get in touch with your State Director, U. S. Treasury Department, Savings Bond Division. He will be glad to show you how easy it is to install and build up a payroll savings plan.

The U. S. Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the G. M. Basford Company and

AMERICAN FERTILIZER



TAX TAG SALES

FIRST SIX MONTHS

The National Fertilizer Association, on the basis of reports from 13 States having either tax tag or fertilizer sales reporting programs, announces that 7,355,000 tons of fertilizer were represented by these figures during the first six months of 1950, exceeding the comparable 1949 total by fully 5 per cent. During June, the latest month for which figures are available, the equivalent tonnage totaled 505,000

as compared with 375,000 in June, 1949, with gains in both the South and Midwest.

Total tonnage for the fiscal year ended June 30, 1950 was 9,966,000 of 1% per cent less than that of the previous fiscal year. This drop reflected a decrease of about 2 per cent in the South which was partially offset by a 1 per cent increase in the Midwest.

FERTILIZER TAX TAG SALES AND REPORTED SHIPMENTS

(In Equivalent Short Tons)

Compiled by The National Fertilizer Association

	June		Calendar Year Cumulative January-June		Fiscal Year Cumulative July-June	
	1950	1949	1950	1949	1949-50	1948-49
Virginia.....	26,770	16,943	511,782	493,987	703,210	684,893
N. Carolina.....	159,240	5,594	1,430,836	1,260,886	1,621,588	1,724,824
S. Carolina.....	12,398	18,910	705,615	762,572	905,759	998,512
Georgia.....	15,818	28,008	956,305	1,016,422	1,173,518	1,276,385
Florida.....	54,569	63,008	570,148	515,463	1,038,777	863,637
Alabama.....	71,006	74,610	824,295	876,852	989,812	1,063,216
Tennessee.....	61,345	64,664	372,738	360,732	473,781	502,304
Arkansas.....	29,508	35,457	290,130	267,177	357,548	355,585
Louisiana.....	10,926	14,242	204,481	185,145	260,925	254,566
Texas.....	24,116	18,151	331,530	289,848	547,179	499,154
<i>Total South.....</i>	<i>465,696</i>	<i>339,587</i>	<i>6,197,860</i>	<i>6,029,084</i>	<i>8,069,097</i>	<i>8,223,076</i>
Indiana.....	28,470	27,092	465,489	365,320	870,908	872,395
Kentucky.....	10,310	7,876	399,407	324,669	565,454	535,998
Missouri.....	282	426	292,715	286,407	460,699	472,163
<i>Total Midwest.....</i>	<i>39,062</i>	<i>35,394</i>	<i>1,157,611</i>	<i>976,396</i>	<i>1,897,061</i>	<i>1,889,556</i>
<i>Grand Total.....</i>	<i>504,758</i>	<i>374,981</i>	<i>7,355,471</i>	<i>7,005,480</i>	<i>9,966,158</i>	<i>10,103,632</i>

V. C. PLANT NEWS

(Special Correspondent)

William Cabell, manager of V-C's tax department, has been elected president of the Richmond Chapter of the National Association of Cost Accountants for the coming year. Walter B. (Bo) Gillette, another V-C'er, was elected as director to serve on Cabell's cabinet.

When the Blood Donor Center in

Louisville, Ky., completed its first year of service to that community, a certificate of appreciation was presented to the employees of the Tobacco By-Products plant in that city who had exceeded their quota of blood donors during the past year. A fine showing of community spirit!

Pennsylvania Conference

Pennsylvania State College has scheduled a conference for fertilizer manufacturers the afternoon of August 7 and the morning of August 8 at Penn State. College authorities suggest that those who expect to attend make their own room reservations in State College.

South Carolina Meeting

More than 200 experiment station officials, farmers, fertilizer agents and dealers, county agents, extension workers and fertilizer manufacturers attended the fertilizer conference at Clemson July 12 and 13. Pastures and livestock production were the central themes of the meeting. A panel discussion on "Our Better Pastures," participated in by farmers, county agents, vocational teachers and extension specialists, was an outstanding feature of the program. Bruce Cloaninger, head, Clemson Department of Fertilizer Inspection and Analysis, presided.

R. F. Poole, president of Clemson college, welcomed the group and J. L. Nichols, NFA Director, of Sumter, responded. Director D. W. Watkins of the extension service discussed "Agricultural Income Prospects." Fred Lodge of NFA attended and discussed "A Hundred Years of Fertilizer Progress".

A. H. Ward, Clemson extension district agent of Aiken, was toastmaster at the annual banquet. The guest speaker, Mark Nichols, director of vocational education for Utah, challenged South Carolina to use its natural resources and develop its livestock industry.

Howard E. Babcock, organizer and former president of the Cooperative Grange League Federation Exchange, died in New York City, July 12. Since 1940, he had been chairman of the board of trustees of Cornell University.

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FERTILIZER CONFERENCE

(Continued from page 7)



Washington State College agricultural leaders, left to right: Dr. J. W. Kalkus (holding sign), superintendent of the Western Washington Experiment Station; H. P. Singleton, superintendent of the Prosser Experiment Station; Dr. J. C. Knott, director of WSC's Institute of Agricultural Sciences; and Dr. Mark T. Buchanan, director of WSC's eight experiment stations.

He said the Soil Improvement Committee of the California Fertilizer Association has cooperated with the colleges in several ways—through research and fellowship grants, joint meetings with experiment stations staffs on soil fertility studies, meetings with Extension Service personnel to discuss local fertilizer problems and the best way to present information to the farmer.

Arthur King, Extension Service soils specialist at Oregon State College, Corvallis, described Extension soils and fertilizer work.

"Simple soil tests are needed for furthering the understanding of commercial fertilizer, and our county agents are equipped to make tests for lime requirement and for available phosphorous," he said.

"In Oregon, we have always worked closely with fertilizer distributors . . . and sometimes we get definite indications that some of the materials may not give good results. We say so, to the farmer, and there have been some violent reactions from parts of the industry from time to time. Nevertheless, the policy will continue, since obviously our first obligation is to do what we can to help the Oregon farmer.

"And I am sure that the policy will help the industry over a period of years," he said.

King said need for commercial fertilizer in Oregon would increase markedly in the next few years.

"This means an expanded fertilizer industry—and we need and will welcome assistance from industry in preparing for this increased use."

Representatives from Canadian experiment stations attended and invited the group to meet there in the future. Other invitations were made by Oregon State College and Idaho University, along with WSC.

Floyd F. Bondy Dies

Floyd Frank Bondy, cotton entomologist of the Department of Agriculture, died in Florence, S. C., July 19. He was fifty-six years old. From 1917 to 1928 Mr. Bondy had been stationed at the department's cotton insect field laboratory at Tallulah, La., and had since been in charge of the cotton insect research program with the Pee Dee Experiment Station at Florence.

Nitrogen in Iceland

The Fertilizer Project Board of Iceland plans to build near Reykjavik a nitrogenous-fertilizer plant with an annual capacity of 6,000 metric tons of nitrogen. The estimated cost is \$4,727,000. The country's requirements of nitrogenous fertilizer, all imported at present, are expected to rise steadily because of the expanding areas of reclaimed land being brought under cultivation. An increase of 5,000 acres annually is planned in each of the next two years and of 10,000 acres annually thereafter.

"Defruiting" Trees Studied

"Defruiting" of ornamental trees and shrubs which are beautiful in bloom, but which bear fruits that are either unsightly or a nuisance, is one of the newest of the many fields in which chemical "growth regulators" promise to be useful. This is in striking contrast with the service of some of these chemicals used to prevent "harvest drop" of apples.

The new field of usefulness of this group of chemicals is under active study by the Department of Agriculture scientists. It looks to limited or partial "defruiting," particularly of apple orchards in which there is likely to be a set of more fruit than the trees can develop in good market size. If the right chemical solution can be found for use immediately after full bloom or in the period when the small fruits are just forming, it may be possible by spraying trees to limit the set of fruit. This could save much expensive labor in hand-thinning of the crop to the number of fruit the trees can properly nourish.

The development of the solution for "defruiting" of ornamental trees will be a boon to cities. Several trees of ornamental value are objectionable because of the unsightly litter they make when their fruits ripen and drop. Some examples are horse chestnut, catalpa, European ash, honey locust, and Eastern poplar. Experimental work will be required to find the best chemicals, the right strength of solution and the time to apply it.

Innis, Speiden Brochure

"How To Do Soil Fumigation with Larvacide" is the title of a six-page, two-color brochure just released by the insecticide division of Innis, Speiden & Company, New York. Included in the brochure are techniques for using "Larvacide" against damping-off, wilts; roots rots and weed seeds. Methods are outlined for using the tear gas fumigant for control of nematodes (eelworms) and other insects found in the upper twelve inches of soil. The brochure, is available at 117 Liberty Street, New York 6, N. Y.



Next Issue . . .

Readers of **AMERICAN FERTILIZER** will note the increase in international news beginning with the next issue . . . more items of interest to export companies in our industry . . . also the **PESTICIDE MARKET LETTER** will continue as a regular feature of the book. . . . The New England pasture tour story is now ready, as promised last issue . . . pictures and all . . . in fact each issue from now on will carry more pictures . . . tell us how you like it.

FERTILIZER DIVISION - A. C. S. PROGRAM

The Division of Fertilizer Chemistry of the American Chemical Society is presenting a program at the fall meetings of the A. C. S. in Chicago on September 4, 5, and 6. The program is as follows:

DIVISION OF FERTILIZER CHEMISTRY

VINCENT SAUCHELLI, Chairman
S. F. THORNTON, Secretary

Monday, September 4, 1950,
2:30 P. M.

GENERAL

VINCENT SAUCHELLI, *Presiding*

W. H. MACINTIRE, S. H. WINTERBERG, L. B. CLEMENTS, and BROOKS ROBINSON: "Effects of Incorporations of Certain Carriers of Fluorine Upon Its Concentration in Crops and Lysimeter Leachings."

W. H. MACINTIRE, S. H. WINTERBERG, L. B. CLEMENTS, L. J. HARDIN and L. S. JONES: "Fluorine Content of Red Clover After Applications of Hydrofluoric Acid on Two Soils."

M. M. MORTLAND and J. E. GIESEKING: "The Influence of Silicate Ions on Potassium Fixation by Clay Minerals."

JACKSON B. HESTER: "Fundamental Factors Influencing the Composition of Tomato Puree."

Tuesday, September 5, 1950,
9:30 A. M.

CALCIUM SULFATE IN AGRICULTURE

S. F. THORNTON, *Presiding*

Introductory Remarks

WALTER S. HAMME: "The Story of Gypsum."

EMIL TRUOG: "Gypsum: Past, Present, and Future Use as a Fertilizer."

VINCENT SAUCHELLI: "Calcium Sulfate in Superphosphate a Source of Calcium and Sulphur Nutrients."

OMER J. KELLEY: "The Role of Gypsum in the Reclamation and Improvement of Alkali Soils for Agricultural Purposes."

Division Luncheon

Tuesday Afternoon

CALCIUM SULFATE IN AGRICULTURE

S. F. THORNTON, *Presiding*

W. H. COLWELL: "Calcium Sulfate as a Fertilizer for Peanuts."

J. C. RINEHART, J. C. S. TEDROW, and F. E. BEAR: "Gypsum as a

Anyone can catch a bouquet and smell it, but it takes a real person to catch a brick and go on and build.

Soil Conditioner in Humid Regions."

GENERAL

A. L. MEHRING and GAE A. BENNETT: "Price Relationships of Certain Nitrogen Fertilizer Materials."

G. L. BRIDGER and J. W. ANDERSON: "Fertilizer by Hydrolysis and Ammoniation of Cellulosic Materials."

Wednesday, September 6, 1950,
9:30 A. M.

GENERAL

VINCENT SAUCHELLI, *Presiding*

E. C. HOUSTON, T. P. HIGNETT, and R. E. DUNN: "Compound Fertilizers from Rock Phosphate, Nitric and Phosphoric Acids, and Ammonia."

G. L. BRIDGER and ELMER H. BRUNSTING: "Acidulation Characteristics of Certain Western Phosphate Rocks."

R. W. MOULTON, G. S. GREAVES, and P. G. HEBNER: "Phosphate Fertilizer by the Fusion of Phosphate Rock and Olivine."

K. G. CLARK and JOHN O. HARDESTY: "Observations on the Fertilizer Industry in the United Kingdom, Netherlands and Norway."

Business Meeting—Election of Officers

AMERICAN FERTILIZER

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Commercial Solvents Corp., New York City
Lion Oil Co. El Dorado, Ark.
Phillips Chemical Co., Bartlesville, Okla.
Spencer Chemical Co., Kansas City, Mo.

AMMONIUM NITRATE

Lion Oil Co., El Dorado, Ark.
Phillips Chemical Co., Bartlesville, Okla.
Spencer Chemical Co., Kansas City, Mo.

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St. Regis Paper Co., New York City
Virginia Carolina Chemical Corp., Richmond, Va.

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Scar-Lipman & Co., New York City
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BORAX AND BORIC ACID

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Baker & Bro., H. J., New York City
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Jackle, Frank R., New York City
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Northern Chemical Industries, Inc., Searsport, Me.
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U.S. Phosphoric Products Division, Tennessee Corp., Tampa, Fla.
Virginia-Carolina Chemical Corp., Richmond, Va.

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Ashcraft-Wilkinson Co., Atlanta, Ga.
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International Minerals & Chemical Corporation, Chicago, Ill.
Jackle, Frank R., New York City
McIver & Son, Alex. M., Charleston, S. C.
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Virginia-Carolina Chemical Corp., Richmond, Va.

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Virginia-Carolina Chemical Corp., Richmond, Va.

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International Minerals & Chemical Corporation, Chicago, Ill.
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McIver & Son, Alex. M., Charleston, S. C.
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